

Freshwater Fisheries Monthly Report – September 2020

Stock Assessment

Qualitative Electrofishing Surveys - Conducted qualitative electrofishing surveys in Kellogg Branch and Gladden Branch (Harford County), Hay Meadow Branch, South Branch Patapsco River and an unnamed tributary to South Branch Patapsco River (Howard County), an unnamed tributary to Piney Run Reservoir (Carroll County), Jones Falls, Piney Run, an unnamed tributary to Piney Run and two sites in the Glen Falls tributary (Baltimore County). Brook and brown trout were found in Kellogg Branch and Gladden Branch. Brown trout were found in the South Branch Patapsco River, unnamed tributary to the South Branch Patapsco River, Jones Falls, Piney Run, unnamed tributary to Piney Run, and the lower site on Glen Falls tributary.

Qualitative Electrofishing Surveys, Montgomery County - Conducted six qualitative electrofishing surveys in the Good Hope tributary to Paint Branch (Montgomery County) from the confluence upstream to the Intercounty Connector overpass, a distance of approximately 0.93 miles (1.5 kilometers (km)). This was the third consecutive year for these surveys to determine the density of brown trout remaining in the Good Hope tributary. No brown trout have been found in the established Hobbs Drive electrofishing station since 2016. Brown trout had been found in the station in the 39 previous years of surveying the Good Hope site. The population has declined drastically since the early 2000s, averaging only one adult from each of the last 10 surveys.. Recruitment has also declined as only two young-of-the-year (YOY) were found in 2015 and no YOY were collected during any other survey since 2011. The Good Hope tributary historically provided the most reliable and consistent recruitment in the entire Paint Branch watershed. The 2020 qualitative surveys conducted in the Good Hope tributary collected two adult brown trout and one YOY brown trout from the lower half of the tributary. Seven YOY brown trout but no adults were collected in the lower third of the 0.93 miles (1.5 km) in 2019. In 2018, five brown trout adults were found. No YOY were found in the entire 0.93 miles (1.5 km) in 2018. For the fourth consecutive year, no brown trout were found in the historical electrofishing survey station in 2020.

Multiple Pass Electrofishing Surveys - Conducted the annual multiple pass electrofishing surveys in the Gunpowder Falls tailwater at the dam/Falls Road, Masemore Road and Blue Mount Road stations (Baltimore County). Data have not been compiled but the usual healthy population of brown trout, with a few rainbow trout from put-and-grow juvenile stocking, were observed in the dam/Falls and Masemore sites. Natural reproduction in the dam/Falls station was low as usual and was below the long-term average at Masemore Road, the next site downstream. The Blue Mount Road station had a healthy population of adult brown trout as well as several large brown trout. Strong natural reproduction was noted in the Blue Mount station.

Conducted a multiple pass electrofishing survey in an unnamed tributary to Deer Creek (Harford County) for the second consecutive year. Multiple year classes of brook trout were collected during the survey.

Big Hunting Creek - Trout surveys were conducted on Big Hunting Creek (Frederick County). Brown trout abundance looked good with an adult trout density of 472 fish/km. Juvenile brown

trout densities were lower at 125 fish/km. With the lack of rain in Frederick and Washington counties through September, water levels in many streams are very low.

Habitat and Water Quality

Habitat Enhancement - Western region staff continues to work on the Broadford Lake fish habitat enhancement project. Staff gained approval from the town of Oakland to enhance the fishery by placing vertical post clusters in the lake to add habitat in areas where it is lacking. Staff spent multiple days running chainsaws cutting four to eight inch diameter posts in nine foot lengths for the project. Posts were obtained by digging through large brush piles at the Mount Nebo Wildlife Management Area that were left over as extra material from a woodcock habitat enhancement project. Staff biologists are currently hauling posts to the lake each day and hand driving the posts into the lake bottom with a sledgehammer.

Lake Habeeb Reef Balls - Freshwater Fisheries and Park Service met to plan the reef ball project for Lake Habeeb. Personnel discussed staging of equipment and the deployment process for the project. Fifty reef balls will be deployed throughout the lake this fall as part of a fish habitat improvement project.

Deep Creek Lake Habitat - Staff continue to work with Deep Creek Lake State Park personnel on planning and deployment procedures for the fish habitat project at Deep Creek Lake. Staff will soon be constructing reef balls that will be deployed in the lake over the next several years.

Water Temperature Monitoring - An Onset WaterTemp Pro logger was removed from an unnamed tributary to Deer Creek. The raw data and location coordinates were provided to Maryland Department of the Environment (MDE). The tributary supports an excellent population of brook trout. Fishing and Boating Services and MDE are working together to assign an appropriate Use Classification that will protect this native resource.

Environmental Review - Provided aquatic resource information for the following environmental review projects:

- Multiple stone revetment projects on Deep Creek Lake. Freshwater Fisheries agreed for the projects to take place as all were in compliance with pre-determined guidelines and staff recommended that Deep Creek Lake Management Area personnel check on the project as they are completed.
- A stone revetment rehabilitation project on Deep Creek Lake. The project consists of placing new rip rap on areas where older materials were washed out. Freshwater Fisheries approved of the project and recommended that fish habitat enhancement structures be incorporated into the revetment plans.
- Allegany Department of Public Works regarding a bridge rehabilitation project on Jennings Run. Recommendations on equipment use and disturbance were given along with mitigation recommendations to be carried out at the completion of the project.
- Application for the installation of a temporary bridge along Cash Valley Road in Lavale, Maryland. The application included proper procedures as well as installation of the bridge and restoration of the site to original conditions at the completion of the project.
- Allegany Department of Public Works regarding a stream restoration project on Georges Creek. The stream bank is severely eroded from high water and is now encroaching upon residential property. Recommendations were made to adhere to the Use III time of

year restriction for instream construction and to restore native vegetation to the streambank.

- Feasibility of an extensive mitigation project in the Patuxent watershed near Upper Marlboro (Prince George's County). Several fish species of concern are found within the Western Branch watershed and dictate that stream mitigation projects be designed and implemented with them in mind. Additional meetings with the State Highway Administration Mitigation Team are scheduled to determine if the project can feasibly be done or if a new site will need to be identified.
- Angler complaints of large trucks operating in the nontidal Potomac River under the current low flow conditions. Aquatic resource information and incident specifics were provided to the Maryland Department of the Environment for investigation.
- An innovative stormwater management pond retrofit design by Carroll County planners. The goal of the design is to reduce the temperature of stormwater treated by an existing stormwater management pond.
- A floodplain restoration project on Beaver Creek in Washington County. Freshwater Fisheries met on site with the Washington County Soil Conservation District and restoration engineers to discuss the design and goals of the project. The project will use multiple channels across the floodplain to dissipate flood flows and increase infiltration; the riparian buffer will be increased by planting native trees and shrubs. Beaver Creek in the restoration area frequently has no surface flow due to the karst geology.

Stocking and Population Management

Trout - Several special regulation areas within the western region were stocked with rainbow and brown trout juveniles from Albert Powell and Cushwa hatcheries. Areas stocked include:

- Youghiogheny River catch-and-release area- 4,000 rainbow trout at 7.4/pound and 3,000 brown trout at 6.25/pound.
- North Branch Potomac River upper catch-and-release area - 4,000 rainbow trout at 7.1/pound.
- North Branch Potomac River zero creel area - 3,000 brown trout at 6.25/pound.

Fall Stocking - Fisheries staff continues to coordinate with hatchery staff on production and planning for the upcoming fall stocking season to begin in October.

Smallmouth Bass - Smallmouth bass stocking efforts for 2020 were completed with the drawdown of hatchery ponds at the United States Geological Survey (USGS) Leetown Science Center (West Virginia). Smallmouth bass adults had been collected back in January from the upper Potomac River and transported to that facility for spawning. COVID-19 restrictions in the spring and summer limited access to the ponds. As a result final juvenile production was low. All adult and juvenile smallmouth bass were stocked back into the upper Potomac River.

Stocking Permits – There were five stocking permits issued in September.

Outreach

Customer Service - Provided information for inquiries regarding:

- Tips for fishing Deep Creek Lake to multiple anglers.
- Fishing information for the Casselman River.

- Special management areas on the Youghiogheny River and regulation information pertaining to each special area.
- Fishing the Youghiogheny River Lake and current conditions of water levels and access.
- Titling and registering a boat in the state of Maryland.
- Purchase of an out of state fishing license and information on license price according to the caller's state (multiple calls on this topic).
- Information for the upcoming fall stocking season.
- Cutting trees on the Deep Creek Lake buffer zone.
- Use of bait traps and bow fishing on Deep Creek Lake and different trout management areas within the region.
- Legalities of duck hunting and the feasibility of launching a boat on the Potomac River at the McCoole Fishery Management Area.
- Weekly fishing report on current fishing conditions within the region.
- A caller's concern about Deep Creek Lake being drawn down fifteen feet for repairs needed on the dam. Freshwater Fisheries staff contacted Deep Creek Lake Park personnel and was given the correct information that the lake was going to be drawn down but not to the extent reported by the caller. The lake will be having a draw down of six feet for the installation of a sewer and water main that could possibly begin this November.
- Blue-green algae bloom in nontidal Potomac River
- Trout populations and fishing access to Beaver Creek in Washington County

Master Naturalist – Presented a three hour virtual program for the Master Naturalist Program in Calvert County. Seventeen participants were given a presentation that covered aquatic ecosystems, water quality, stream assessment, invasives and other threats to stream ecology. Participants also learned the basic characteristics of the 23 families of freshwater fishes in Maryland. Although a bit difficult to conduct the “hands-on” portion of this program, fish species were shown to the class and the different characteristics pointed out to assist with family identification.

Pond Check - Provided technical guidance to a landowner in the Glenn Falls tributary watershed (Baltimore County) who inherited a property with a pond from her parents. The pond is approximately fifty years old and is full of submerged aquatic vegetation (SAV) and duckweed. The banks at the upper end of the pond are covered with phragmites. The landowner remembers the pond having largemouth bass and other aquatic fauna but hadn't seen any signs of life except for frogs. Freshwater Fisheries electrofished some of the more shallow areas since running a seine would be impossible. The first pass through the thick SAV turned up no fish. A move to a slightly shallower site with a little less vegetation turned up YOY largemouth bass and bluegill sunfish as well as one stock size bluegill. The landowner was quite pleased the pond still had fish and will be considering her options to improve the health of the pond.

Angler Access

Fishery Management Area - Western Region staff continued to conduct maintenance at fishery management areas (Black Oak, McCoole, and Evitts Creek Ponds). These areas continue to be mowed and cleared of trash to make them presentable for anglers and recreational boaters.

Maintained regulations signs so users are informed of proper fishing regulations while angling in different management areas.

Invasive Species

Flathead Catfish - Conducted a flathead catfish survey in the upper Potomac River near Taylors Landing. Flathead catfish are an invasive species in Maryland. Sampling efforts are focused on monitoring their abundance and distribution in the river. Flathead catfish collected ranged in size from 11 to 38 inches. All flatheads were tagged along the dorsal fin with a green plastic dart tag that included a phone number. Anglers are asked to please report any tagged flathead catfish caught.

Blue Catfish - Completed summer collections of blue catfish from the Patuxent River for a diet study. During summer 2020, more than 500 fish were collected and their stomach contents examined. Notable food items discovered included Atlantic menhaden and blue crab, also included was submerged aquatic vegetation and numerous items too digested for visual identification. Those samples were preserved and will be later identified via DNA analysis by researchers at the USGS Leetown Science Center (West Virginia). Sampling will continue through fall 2020 to determine fish diets and what, if any, seasonal variation exists.

Conducted an informal orientation for a Maryland Biological Stream Survey (MBSS) crew that is assisting Southern Region staff with the fall blue catfish diet study on the Patuxent River. So far, over 200 blue catfish have been collected by MBSS and have been processed at the Freshwater Fisheries office in Cedarville State Forest (Charles County). As expected, smaller fish (<500 mm in length) typically contain algae and submerged aquatic vegetation in their stomachs, but crayfish and unidentified fish have also been found in fish across all sizes. All samples thus far have been collected from the upriver portions of the study area.

Biologists continued installing radio receiver stations along the tidal, freshwater Patuxent River (Anne Arundel, Charles, Prince George's counties) to track tagged blue catfish in the coming months. Locations of stations required the coordination and cooperation with both private landowners and county agencies.

Completed tissue collections of blue catfish for researchers at USGS Leetown Science Center (West Virginia). Tissue collections were completed utilizing fish samples collected for a concurrent diet study on the tidal Patuxent River. Researchers will use the samples for disease and contaminant monitoring.

Brook Trout Program

Participated in the quarterly Eastern Brook Joint Venture steering committee meeting.

Participated in the Bay Program Brook Trout Action Team meeting. Priorities discussed included reporting mechanisms for successful projects and the upcoming development of the next biannual work plan.

Completed the annual Federal Aid report for brook trout work.

Participated with the planning committee for developing the conference agenda, schedule, and invited speakers list for the upcoming brook trout genetics symposium. This effort is being funded by a Bay Program grant.

Responded to customer service inquiries about brook trout angling opportunities statewide. During the pandemic there has been an increase in questions about angling opportunities, and staff has noticed more anglers out fishing.

Developed a fact sheet for the department's Forest Service detailing the benefits of riparian buffers for brook trout.

Tidal Bass Program

Tidal Black Bass Surveys - Eastern Region staff began fall sampling of tidal black bass populations. Electrofishing surveys of the upper Chesapeake Bay thus far have yielded some impressive catches of large and smallmouth bass. Young bass hatched this spring have been abundant and collected from each site sampled. Sampling of the upper Chesapeake Bay will be complete by early October.



A six-pound largemouth bass



A five-pound smallmouth bass

Conducted a tidal largemouth bass survey on Middle River (Baltimore County). Seven sites were electrofished with largemouth bass found at five of the seven sites. Multiple year classes of largemouth bass were collected. Multiple year classes of northern snakehead were also collected at several sites. Other fish species observed of interest to anglers were bluegill, chain pickerel, channel catfish, pumpkinseed, spot, striped bass, white perch, and yellow perch.

The annual tidal bass survey on the tidal, freshwater Potomac River (Charles and Prince George's counties) was initiated. In 2020, regional biologists will sample over 50 sites via electrofishing to determine the health of the fishery and reproductive success.

Biologists attended multiple black bass tournaments hosted at Smallwood State Park (Charles County). Release boat conditions were monitored to ensure fish were released in good health. Anglers and tournament crew wore masks and largely maintained social distancing practices.